

# If-Else Programming Questions

## Basic Questions:

1. Write an if-else statement to check if a number is even or odd.
2. Write an if-else statement to check if a number is positive, negative, or zero.
3. Write an if-else statement to find the maximum of two numbers.
4. Write an if-else statement to determine if a character is a vowel or consonant.
5. Write an if-else statement to check if a given year is a leap year.
6. Write an if-else statement to check if a person is eligible to vote based on their age.
7. Write an if-else statement to find the smaller of two numbers.
8. Write an if-else statement to check if a given number is a multiple of 5.
9. Write an if-else statement to verify if a password meets the required conditions.
10. Write an if-else statement to check if a number is within a specified range.

## Intermediate Questions:

11. Write an if-else statement to determine the quadrant of a point in the Cartesian plane.
12. Write an if-else statement to check if a number is divisible by both 2 and 3.
13. Write an if-else statement to categorize a number as positive, negative, or zero.
14. Write an if-else statement to compute the absolute value of a number.
15. Write an if-else statement to validate a date input by the user.
16. Write an if-else statement to calculate the fare for a taxi ride based on distance traveled.
17. Write an if-else statement to categorize an angle as acute, obtuse, right, or straight.
18. Write an if-else statement to determine the type of triangle based on its side lengths.
19. Write an if-else statement to convert temperature from Celsius to Fahrenheit or vice versa.
20. Write an if-else statement to calculate the grade of a student based on their score.

## Advanced Questions:

21. Write a nested if-else statement to classify a person into different age groups (child, teenager, adult, senior).

22. Write an if-else statement to simulate a basic calculator with addition, subtraction, multiplication, and division.
23. Write an if-else statement to find the roots of a quadratic equation.
24. Write a nested if-else statement to categorize a person's income level (low, middle, high) based on income ranges.
25. Write an if-else statement to validate a username and password based on predefined rules.
26. Write an if-else statement to perform different actions based on the user's choice in a menu-driven program.
27. Write a nested if-else statement to determine the type of account (savings, checking) and apply corresponding operations.
28. Write an if-else statement to determine the final price of a product after applying discounts based on customer type.
29. Write an if-else statement to categorize a number as a prime or composite.
30. Write an if-else statement to validate and format a user-entered phone number.
31. Write an if-else statement to calculate the BMI and determine the health category.
32. Write an if-else statement to simulate a simple login system that locks the user out after 3 failed attempts.
33. Write a nested if-else statement to process a shopping cart and apply discounts based on the total amount.
34. Write an if-else statement to check if a string is a palindrome.
35. Write an if-else statement to calculate the area and perimeter of different shapes based on user input.
36. Write an if-else statement to classify an employee based on their years of service.
37. Write an if-else statement to determine if a number is an Armstrong number.
38. Write an if-else statement to handle file operations based on user input (create, read, update, delete).

39. Write an if-else statement to simulate a basic banking system with options to deposit, withdraw, and check balance.
40. Write an if-else statement to categorize a movie rating based on the age of the viewer.
41. Write an if-else statement to perform different mathematical operations based on user input.
42. Write an if-else statement to determine the eligibility for a scholarship based on grades and extracurricular activities.
43. Write an if-else statement to determine the winner of a rock-paper-scissors game.
44. Write an if-else statement to categorize a list of words into those that start with a vowel and those that don't.
45. Write an if-else statement to implement a basic grading system where different grades have different ranges.
46. Write an if-else statement to simulate a turn-based game where two players take turns and the winner is determined based on points.
47. Write an if-else statement to calculate the interest rate based on the type of account and deposit amount.
48. Write an if-else statement to validate input in a form (e.g., email, phone number, etc.).
49. Write an if-else statement to determine if a number is a perfect square.
50. Write an if-else statement to simulate a simple traffic light system with conditions for green, yellow, and red lights.